Abstract

A system controls access to a plurality of devices with only four lines by grouping the devices in nodes, wherein each node includes a local control circuit and a predetermined number of the devices, with each local control circuit defining a shift register, the positions of which are respectively connected to the devices. The nodes are connected in series with a host controller, so that the shift registers of the several nodes cooperate to form a system shift register. The nodes are serially addressed by a serial data message from a DATA OUT line of the host controller, which message includes MxN data bits followed by strobe indicator, where N is the number of nodes and M is the number of devices at each node. All controllers are connected to a V+ line and a COMMON line and a RETURN line. The system register forms a fourth line, one end of which is connected to the host controller DATA OUT terminal and the other end of which may be connected to the RETURN line.